IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A lithium secondary battery comprising:

a positive electrode including a positive electrode active material;

a negative electrode including a negative electrode active material; and

a non-aqueous electrolyte,

wherein said positive electrode active material comprises at least one lithium-containing composite oxide represented by the following general formula:

$$Li_xM^1_{1-y}M^2_yO_2$$

where M^1 and M^2 are different elements, M^1 is Ni or Co, M^2 is at least one selected from Ni, Co, Mn, Mg, and Al, $1 \leq x \leq 1.05$, and $0 \leq y \leq 0.7$,

said negative electrode active material comprises at least one selected from the group consisting of silicon, tin, a silicon-containing alloy, and a tin-containing alloy,

said non-aqueous electrolyte includes an organic peroxide and ~~does not include~~ is free from a monomer capable of being radical-polymerized,

said organic peroxide accounts for 0.1 to 5 % by weight of said non-aqueous electrolyte, and

said organic peroxide is at least one selected from the group consisting of hydroperoxides, peroxyketals, and ketone peroxides.

2–4. (Cancelled)

5. (Previously Presented) The lithium secondary battery in accordance with claim 1, wherein said organic peroxide is further included in said negative electrode.

6. (Original) The lithium secondary battery in accordance with claim 1, wherein said negative electrode active material comprises a silicon-containing alloy.

7. (Original) The lithium secondary battery in accordance with claim 6, wherein said silicon-containing alloy comprises: a solid solution including silicon and at least one transition metal element selected from the group consisting of Ti, Ni, Co, Fe, and Cu; or an alloy including silicon and at least one intermetallic compound selected from the group consisting of $TiSi_2$, TiSi, $CoSi_2$, CoSi, $FeSi_2$, FeSi, $NiSi_2$, NiSi, and Cu_3Si.

8. (Original) The lithium secondary battery in accordance with claim 7, wherein said intermetallic compound is $TiSi_2$.

9. (Previously Presented) The lithium secondary battery in accordance with claim 1, wherein said organic peroxide is further included in said positive electrode.

10. (Previously Presented) The lithium secondary battery in accordance with claim 5, wherein said organic peroxide is further included in said positive electrode.

11. (Currently Amended) A lithium secondary battery comprising:

a positive electrode including a positive electrode active material;

a negative electrode including a negative electrode active material; and

a non-aqueous electrolyte,

wherein said positive electrode active material comprises at least one lithium-containing composite oxide represented by the following general formula:

$Li_xM^1{}_{1-y}M^2{}_yO_2$

where M^1 and M^2 are different elements, M^1 is Ni or Co, M^2 is at least one selected from Ni, Co, Mn, Mg, and Al, $1 \leq x \leq 1.05$ and $0 \leq y \leq 0.7$,

said negative electrode active material is at least one selected from the group consisting of silicon, tin, a silicon-containing alloy, and a tin-containing alloy,

said negative electrode includes an organic peroxide,

said organic peroxide is at least one selected from the group consisting of hydroperoxides, peroxyketals, and ketone peroxides, and

said non-aqueous electrolyte ~~does not include~~ is free from a monomer capable of being radical-polymerized.

12. (Currently Amended) A lithium secondary battery comprising:

a positive electrode including a positive electrode active material;

a negative electrode including a negative electrode active material; and

a non-aqueous electrolyte,

wherein said positive electrode active material comprises at least one lithium-containing composite oxide represented by the following general formula:

$Li_xM^1{}_{1-y}M^2{}_yO_2$

where M^1 and M^2 are different elements, M^1 is Ni or Co, M^2 is at least one selected from Ni, Co, Mn, Mg, and Al, $1 \leq x \leq 1.05$ and $0 \leq y \leq 0.7$,

said negative electrode active material is at least one selected from the group consisting of silicon, tin, a silicon-containing alloy, and a tin-containing alloy,

said positive electrode includes an organic peroxide,

said organic peroxide is at least one selected from the group consisting of hydroperoxides, peroxyketals, and ketone peroxides, and

said non-aqueous electrolyte ~~does not include~~ is free from a monomer capable of being radical-polymerized.